CLAIMS

Amend the claims as follows.

1. (Original) A test method, comprising:

setting an overdrive;

measuring a contact resistance of at least one channel in each of a plurality of dies on a wafer;

computing a per channel standard deviation responsive to measuring the contact resistance;

comparing the standard deviation on the at least one channel to a threshold; and

increasing the overdrive responsive to comparing the standard deviation.

2. (Original) The test method of claim 1 where measuring the contact resistance on the at least one channel comprises:

forcing a current through the at least one channel;

measuring a voltage on the at least one channel; and

calculating the contact resistance responsive to the forcing and measuring.

3. (Original) The test method of claim 1 where measuring the contact resistance comprises measuring the contact resistance on all channels on each of the plurality of dies.

4. (Original) The test method of claim 1 where measuring the contact resistance comprises measuring contact resistance on a group of channels on each of the plurality of dies.

5. (Original) The test method of claim 1 where measuring the contact resistance comprises measuring the contact resistance of all of the dies on the wafer.

6. (Original) The test method of claim 1 where measuring the contact resistance comprises measuring the contact resistance of a group of dies on the wafer.

7. (Original) The test method of claim 1 comprising establishing a bare contact with the at least one channel on each of the plurality of dies prior to setting the overdrive.

8. (Original) The test method of claim 1 comprising comparing the overdrive to an overdrive limit prior to measuring the contact resistance.

9. (Original) The test method of claim 1 comprising increasing the overdrive if the standard deviation on the at least one channel of each of the plurality of dies is less than the threshold.

10. (Original) The test method of claim 1 comprising repeating measuring the contact resistance and computing the standard deviation responsive to comparing the standard deviation.

11. (Original) A test apparatus, comprising:

means for setting an overdrive;

means for measuring a contact resistance on each of a plurality of dies in a wafer;

means for computing a standard deviation for each contact resistance measured responsive to the means for measuring the contact resistance; and

means for increasing the overdrive responsive to the means for computing the standard deviation.

12. (Original) The test apparatus of claim 11 where the means for measuring the contact resistance includes means for measuring a contact resistance on at least one channel in each of the plurality of dies.

13. (Original) The test apparatus of claim 11 comprising means for establishing a bare contact with each of the plurality of dies on the wafer.

14. (Original) The test apparatus of claim 11 comprising means for comparing the overdrive to an overdrive limit prior to measuring the contact resistance.

15. (Original) The test apparatus of claim 11 where the means for increasing the overdrive increases the overdrive if the standard deviation is less than a predetermined threshold.

16. (Currently amended) A wafer test system, comprising:

a tester ~~capable of generating~~ adapted to generate wafer test signals;

a wafer including a plurality of dies, each die having a plurality of channels;

a probe head including a plurality of pins ~~capable of probing~~ adapted to probe the plurality of channels on each of the plurality of dies on the wafer; and

a chuck ~~capable of placing~~ adapted to place the wafer in contact with the probe head;

where the tester is ~~capable of~~ adapted to:

~~communicating~~ communicate an overdrive to the chuck, the chuck moving the wafer towards the probe head responsive to the overdrive;

~~measuring~~ measure a contact resistance of at least one channel in each of the dies of the wafer using the probe head;

~~computing~~ compute a per channel standard deviation responsive to measuring the contact resistance;

~~comparing~~ compare the standard deviation on the at least one channel to a threshold; and

~~increasing~~ increase the overdrive responsive to the comparison.

17. (Currently amended) The wafer test system of claim 16 where the tester is ~~capable of measuring~~ adapted to measure the contact resistance by:

forcing a current through the at least one channel;

measuring a voltage on the at least one channel; and

calculating the contact resistance responsive to the forcing and measuring.

18. (Currently amended) The wafer test system of claim 16 where the tester is ~~capable of measuring~~ adapted to measure the contact resistance by measuring the contact resistance on all channels on each of the plurality of dies.

19. (Currently amended) The wafer test system of claim 16 where the tester is ~~capable of measuring~~ adapted to measure the contact resistance by measuring the contact resistance on a group of channels on each of the plurality of dies.

20. (Currently amended) The wafer test system of claim 16 where the probe head is ~~capable of establishing~~ adapted to establish a bare contact with all channels on each of the plurality of dies on the wafer prior to the tester setting the overdrive.

21. (Currently amended) The wafer test system of claim 16 where the tester is ~~capable of comparing~~ adapted to compare the overdrive to a limit prior to measuring the contact resistance.

22. (Currently amended) The wafer test system of claim 16 where the tester is ~~capable of increasing~~ adapted to increase the overdrive if the standard deviation on all channels is less than the threshold.

23. (Currently amended) The wafer test system of claim 16 where the tester is ~~capable of repeating~~ adapted to repeat measuring the contact resistance and computing the standard deviation responsive to comparing the standard deviation.

24. (Original) An article comprising a storage medium having stored thereon instructions, that, when executed by at least one device, result in:

setting an overdrive;

measuring contact resistance on at least one channel in each of a plurality of dies on a wafer;

computing a per channel standard deviation responsive to measuring the contact resistance;

comparing the standard deviation on at least one channel to a threshold; and

increasing the overdrive responsive to comparing the standard deviation.

25. (Original) The article of claim 24 where measuring the contact resistance on the at least one channel comprises:

forcing a current through the at least one channel;

measuring a voltage on the at least one channel; and

calculating the contact resistance responsive to the forcing and measuring.

26. (Original) The article of claim 24 comprising establishing a bare contact with all channels on each of the plurality of dies on the wafer prior to setting the overdrive.

27. (Original) The article of claim 24 comprising comparing the overdrive to an overdrive limit prior to measuring the contact resistance.

28. (Original) The article of claim 24 comprising increasing the overdrive if the standard deviation on all channels is less than the threshold.

29. (Original) The article of claim 24 comprising repeating comparing the overdrive, measuring the contact resistance, and computing the standard deviation responsive to comparing the standard deviation.